ABSTRACT

A high-intensity discharge lamp connected to a lighting device has various superior emission properties such as efficiency. The discharge lamp includes a translucent ceramic discharge vessel, in which a pair of electrodes and a discharge medium are inserted. The lamp further includes an outer jacket, in which the arc tube is disposed, and a pair of feeder members. The discharge medium has metal halides including those of Na, Tl and Tm or Na, Tl, In and Tm, and the ratio (MTm/M) of the weight of the gross sealed mass M of the metal halides to the filled mass MTm of the Tm halide is about $0.4 \leq \text{MTm} / \text{M} \leq 0.9$. The deviation in chromaticity (d.u.v.) on the x-y chromaticity coordinates (CIE 1931) for the overall operating position during the life of the lamp is within the range of about 0.006 to +0.010.